

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Food Safety

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
311	Animal Diseases	0%		2%	
501	New and Improved Food Processing Technologies	20%		0%	
502	New and Improved Food Products	0%		36%	
504	Home and Commercial Food Service	0%		4%	
701	Nutrient Composition of Food	0%		13%	
702	Requirements and Function of Nutrients and Other Food Components	0%		2%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	20%		9%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	60%		24%	
723	Hazards to Human Health and Safety	0%		3%	
724	Healthy Lifestyle	0%		7%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	1.1	0.0	5.0	0.0
Actual Paid	0.8	0.0	6.9	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
53177	0	265376	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
76846	0	770362	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	1737572	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Basic and Applied Research
- Facilitated Group Meetings and Conferences
- Printed Materials
- Single day workshop, presentation or event
- Websites or Other Computer-based Delivery

2. Brief description of the target audience

- Food growers/producers
- Food Processors
- Food Retailers
- Food Service Managers
- Residential care facility staff
- School cafeteria workers
- General public
- Cosmetic and Pharmaceutical industries
- Farmers Markets

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	97	1552	0	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2014
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2014	Extension	Research	Total
Actual	0	28	28

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Workshop series or educational course

Year	Actual
2014	2

Output #2

Output Measure

- Displays and Exhibits
- Not reporting on this Output for this Annual Report

Output #3

Output Measure

- Websites or Other Computer-based delivery

Year	Actual
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2014 1

Output #4

Output Measure

- Peer review publications

Year	Actual
2014	28

Output #5

Output Measure

- Analytic Tools and Techniques

Year	Actual
2014	3

Output #6

Output Measure

- Grant Submission or Other Funding Proposal

Year	Actual
2014	12

Output #7

Output Measure

- Individual Consultations and Site Visits

Year	Actual
2014	18

Output #8

Output Measure

- Printed Materials

Year	Actual
2014	2

Output #9

Output Measure

- Published News, Professional or Trade Article

Year	Actual
2014	1

Output #10

Output Measure

- Single day Workshop, Presentation or Event

Year	Actual
2014	1

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Creation and synthesis of knowledge related to the safety, and the functional and bioactive properties of food.
2	Participants acquire knowledge and skill to avoid food borne illness and control other food safety risks and hazards
3	Participants adopt practices to avoid food borne illness and control other food safety risks and hazards

Outcome #1

1. Outcome Measures

Creation and synthesis of knowledge related to the safety, and the functional and bioactive properties of food.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Participants acquire knowledge and skill to avoid food borne illness and control other food safety risks and hazards

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	722

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There are over 400,000 incidences of produce-related foodborne illnesses each year in Massachusetts. The estimated cost as a result of the illnesses is \$903 million. Food Safety Extension focuses on applied research and food safety education to support the food industry and a safe and sustainable food system. The program conducts and supports applied research and educational programming and offers other outreach opportunities that address the food safety needs of individuals and groups through short courses, on-line training and other outreach venues.

What has been done

We conducted a series of workshops for Massachusetts growers who produce ?Specialty Crops.? The workshops focused on helping growers interested in safe ?Value-Added Processing? for direct sales and marketing of products made from produce they grow. We continued to offer our Hazard Analysis of Critical Control Point training and certification programs. This year, we developed a publication for a Food Safety Magazine publication related to On-Farm Food Safety

Challenges and Opportunities.

Results

All Better Process Control School participants received certification for successfully passing all exams pertaining to the material. Food industry professionals acquired skills and knowledge and made more safe decisions regarding their food products. Hazard Analysis of Critical Control Point Participants acquired the knowledge, skills and tools to create food safety management plans. And Better Process Control School participants increased their knowledge and skill for the safe and healthy production of value-added products from specialty crops.

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #3

1. Outcome Measures

Participants adopt practices to avoid food borne illness and control other food safety risks and hazards

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1558

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

All Better Process Control School participants received certification for successfully passing all exams pertaining to the material. Food industry professionals acquired skills and knowledge and made more safe decisions regarding their food products. Hazard Analysis of Critical Control Point Participants acquired the knowledge, skills and tools to create food safety management plans. And Better Process Control School participants increased their knowledge and skill for the safe and healthy production of value-added products from specialty crops.

Key Items of Evaluation